

REMARKS

The foregoing Amendment and Remarks which follow are responsive to the Office Action mailed August 22, 2006 in relation to the above-identified patent application. In that Office Action, the Examiner rejected Claims 1, 2, 11, 12 and 20 under 35 U.S.C. §102(e) as purportedly being anticipated by the Osako et al. reference (US 6,988,668). Additionally, the Examiner rejected Claims 1, 6, 8, 9, 11, 16 and 18-20 under 35 U.S.C. §103(a) as being unpatentable over the Maeda et al. reference (US 6,433,285) in view of the Osako et al. reference, and rejected Claim 10 under 35 U.S.C. §103(a) as being unpatentable over the Maeda et al. and Osako et al. references in view of the Lo et al. reference (US 5,617,297). Importantly, the Examiner indicated that Claims 3-5, 7, 13-15 and 17 were rejected as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims

By this Amendment, Applicant has amended independent Claim 1 to describe the first and second encapsulation parts of the memory card as each being “*exposed in the memory card.*” Independent Claim 11 has been amended to describe the first and second encapsulation parts formed in accordance with the recited memory card fabrication method as each being “*exposed in the memory card.*” Similarly, independent Claim 20 has been amended to describe the mold compound applied to the substrate in accordance with the recited memory card fabrication method as being “*exposed in the memory card.*” Applicant respectfully submits that at least these features of amended independent Claims 1, 11 and 20 are not taught or suggested by any of the cited prior art references of record, considered alone or in combination.

Applicant has also added new independent Claim 21 into prosecution which represents a combination of the features recited in Claims 1 and 7 of Applicant’s June 8, 2006 Amendment. Due to Claim 7 only having been objected to by the Examiner, Applicant respectfully submits that new independent Claim 21 is in condition for allowance. In addition to Claim 21, new independent Claim 22 has also been added into prosecution by the present Amendment. Claim 22 represents a combination of the features recited in Claims 20 and 7 or 17 of Applicant’s June 8, 2006 Amendment. Because Claims 7 and 17 were each only objected to by the Examiner, Applicant respectfully submits that the recitation of the

features recited in each of Claims 7 and 17 in new independent Claim 22 places Claim 22 into condition for allowance. Further, new Claims 23 and 24 have been added into prosecution, each of which is dependent upon independent Claim 1.

Independent Claims 1, 11 and 20 are Not Anticipated by the Osako et al. Reference

Applicant respectfully submits that independent Claims 1, 11 and 20 as amended are not anticipated by the cited Osako et al. reference. As is apparent Figures 1-3 and 19-21 of the Osaka et al. reference, the IC card 1 comprises a wiring substrate 5 having an interconnect 10 formed on one side thereof, and an external connection terminal 6 formed on the side thereof opposite that having the interconnect 10 formed thereon. Attached to the side of the substrate 5 having the interconnect 10 formed thereon is semiconductor chip 7. The semiconductor chip 7 is electrically connected to the interconnect 10 through the use of a bonding wire 9. The semiconductor chip 7, bonding wire 9, interconnect 10 and a portion of that surface of the substrate 5 to which the semiconductor chip 7 is mounted are covered by a sealing portion 8 made of a thermosetting resin material. A portion of the remaining side of the substrate 5 having the connection terminal 6 formed thereon is covered with a sealing portion 3 which is made of a thermoplastic resin material.

As is explained in the specification of the Osako et al. reference and shown in the above-referenced figures thereof, the majority of the sealing portion 8 is covered by a case 2 as a result of the advancement of the sealing portion 8 into a complimentary dent or recess 2a defined by the case 2. That portion of the sealing portion 8 which is not covered by the case 2 is itself covered by the subsequently formed sealing portion 3, the case 2 and the sealing portion 3 being described as made of the same thermoplastic resin material. In this regard, the explicit teaching of the Osako et al. reference is that the IC body 4 collectively defined by the substrate 5, semiconductor chip 7, bonding wire 9 and sealing portion 8 is made integral with the case 2 by the sealing portion 3, that surface of the substrate 5 having the connection terminal 6 formed thereon and at least a portion of the surface of the case 2 on the side on which the IC body 4 is mounted being covered with the sealing portion 3 so as to make the case 2 integral with IC body 4 (see Osako et al. reference, column 5, line 66 through column 6, line 10).

Based on the foregoing, Applicant respectfully submits that the clear teaching of the Osako et al. reference is that the external card shape of the IC card 1 is collectively defined by the case 2 and the sealing portion 3 thereof. In this regard, the sealing portion 8 is completely covered by the case 2 and the sealing portion 3, and thus is not exposed in the IC card 1. In contrast, in each of independent Claims 1, 11 and 20 as amended, the first and second encapsulation parts (in the case of Claims 1 and 11) or the mold compound (in the case of Claim 20) are each described as being “*exposed*” in the memory card. Thus, Applicant respectfully submits that independent Claims 1, 11 and 20 as amended are not anticipated by the Osako et al. reference, and are in condition for allowance. Additionally, Applicant respectfully submits that Claims 2-10, 12-19, 23 and 24 are also in condition for allowance as being dependent upon respective allowable base claims. With regard to new Claim 23, since the sealing portion 8 is completely covered by the case 2, such sealing portion is clearly not “*configured to impart a prescribed form factor*” to the IC card 1. Nor does the sealing portion 3 or the sealing portion 8 cover the entirety of that surface of the substrate 5 to which it is applied in the context of new Claim 24.

Independent Claims 1, 11 and 20 are not Rendered Obvious by the Combination of the Maeda et al. and Osako et al. References

Applicant respectfully submits that the Maeda et al. reference cited as the primary reference in support of the Section 103(a) rejection of independent Claims 1, 11 and 20 suffers from the same deficiencies as the Osako et al. reference discussed with specificity above in relation to the Section 102(e) rejections of Claims 1, 11 and 20. More particularly, in Figures 1a, 1b, 2 and 7 highlighted by the Examiner, the Maeda et al. reference teaches an IC card module 10, 70 including a printed wiring board 11, 71 having semiconductor devices 13 mounted to one side thereof (in the case of the module 10) or to each of an opposed pair of sides thereof (in the case of the module 70). In the module 10, the semiconductor devices 13 and wires 14 used to electrically connect the same to the printed wiring board 11 are covered by a resin 16 which also covers a portion of that surface of the printed wiring board 11 to which the semiconductor devices 14 are mounted. In the module 70, the semiconductor devices 13 mounted to each of the opposed sides of the printed wiring board 71 and the corresponding wires 14 are each covered by a respective body of resin 16.

Applicant respectfully submits that the explicit teaching of the Maeda et al. reference is that the resin(s) 16 of the modules 10, 70 is/are not exposed in the IC card 24 into which the module 10, 70 is integrated. Rather, the exposed exterior surface features of such IC card 24 (and hence the form factor imparted thereto) is defined by a case 23 within which the module 10, 70 is housed (see Maeda et al. reference, Figure 3B; column 6, lines 29-35). As a result, the resin(s) 16 of the module 10, 70 is/are clearly covered by the case 23, and thus are not exposed in and do not impart a prescribed form factor to the IC card 24. Nor do the resin(s) 16 of the module 10, 70 cover the entirety of that surface of the a printed wiring board 11, 71 to which they are applied.

Thus, for the same reasons discussed above in relation to the Section 102(e) rejections of independent Claims 1, 11 and 20 under the Osako et al. reference, Applicant respectfully submits that independent Claims 1, 11 and 20 are also not rendered obvious by the combination of the Maeda et al. and Osako et al. references, and are in condition for allowance. Additionally, Applicant respectfully submits that Claims 2-10, 12-19, 23 and 24 are also in condition for allowance as being dependent upon respective allowable base claims.

Conclusion

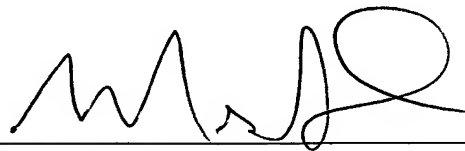
On the basis of the foregoing, Applicant respectfully submits that the stated grounds of rejection have been overcome, and that Claims 1-24 are now in condition for allowance. An early Notice of Allowance is therefore respectfully requested.

If any additional fee is required, please charge Deposit Account Number 19-4330.

Respectfully submitted,

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